L. 1 SECTION L PROVISIONS INCORPORATED BY REFERENCE

(52.204-6)	DATA UNIVERSAL NUMBERING SYSTEM (DUNS) NUMBER (JUNE 1999)
(52.214-34)	SUBMISSION OF OFFERS IN THE ENGLISH LANGUAGE (APR 1991)
(52.214-35)	SUBMISSION OF OFFERS IN U.S. CURRENCY (APR 1991)
(52.215-1)	INSTRUCTIONS TO OFFERORSCOMPETITIVE ACQUISITION (MAY
	2001)
(52.215-16)	FACILITIES CAPITAL COST OF MONEY (OCT 1997)
(52.219-24)	SMALL DISADVANTAGED BUSINESS PARTICIPATION PROGRAM
	TARGETS (OCT 2000)
(52.222-24)	PREAWARD ON-SITE EQUAL OPPORTUNITY COMPLIANCE
	EVALUATION (FEB 1999)
(1852.227-71)	REQUESTS FOR WAIVER OF RIGHTS TO INVENTIONS (APR 1984)
(1852.233-70)	PROTESTS TO NASA (MAY 2002)

(End of By Reference Section)

L. 2 COMMUNICATIONS REGARDING THIS SOLICITATION (GSFC 52.215-96) (AUG 2000)

Any questions or comments regarding this solicitation shall cite the solicitation number and be directed to the following Government representative:

Name: Jim Becker

Phone: 301-286-4223

(Collect calls not accepted)

FAX: 301-286-7434

E-Mail: jbecker@pop200.gsfc.nasa.gov

Goddard Space Flight Center *Address:

Greenbelt, MD 20771

Attention: *Jim Becker, Bldg 16W, Rm N055, Mail Code 210.H

*(Note: Must be complete, including Mail Code, on all transmittals.)

The Government will answer relevant and appropriate questions regarding this solicitation. Any Offeror questions should be submitted as soon as possible.

(End of provision)

L. 3 TYPE OF CONTRACT (52.216-1) (APR 1984)

The Government contemplates award of a Firm Fixed-Price contract resulting from this solicitation.

(End of Provision)

L.4 INVITATION TO PROPOSE PERFORMANCE-BASED PAYMENTS (52.232-28) (MAR 2000)—ALTERNATE I (MAR 2000).

- (a) The Government invites the Offeror to propose terms under which the Government will make performance-based contract financing payments during contract performance. The Government will consider performance-based payment financing terms proposed by the Offeror in the evaluation of the Offeror's proposal. The Contracting Officer will incorporate the financing terms of the successful Offeror and the FAR clause, Performance-Based Payments, at FAR 52.232-32, in any resulting contract.
- (b) In the event of any conflict between the terms proposed by the Offeror and the terms in the clause at FAR 52.232-32, Performance-Based Payments, the terms of the clause at FAR 52.232-32 shall govern.
- (c) The Contracting Officer will not accept the Offeror's proposed performance-based payment financing if the financing does not conform to the following limitations:
 - (1) The Government will make delivery payments only for supplies delivered and accepted, or services rendered and accepted in accordance with the payment terms of this contract.
 - (2) The terms and conditions of the performance-based payments must—-
 - (i) Comply with FAR 32.1004;
 - (ii) Be reasonable and consistent with all other technical and cost information included in the Offeror's proposal; and
 - (iii) Their total shall not exceed 90 percent of the contract price if on a whole contract basis, or 90 percent of the delivery item price if on a delivery item basis.
 - (3) The terms and conditions of the performance-based financing must be in the best interests of the Government.
- (d) The Offeror's proposal of performance-based payment financing shall include the following:
 - (1) The proposed contractual language describing the performance-based payments (see FAR 32.1004 for appropriate criteria for establishing performance bases and performance-based finance payment amounts).
 - (2) A listing of—

- (i) The projected performance-based payment dates and the projected payment amounts; and
- (ii) The projected delivery date and the projected payment amount.
- (3) Information addressing the Contractor's investment in the contract.
- (e) Evaluation of the Offeror's proposed prices and financing terms will include whether the Offeror's proposed performance-based payment events and payment amounts are reasonable and consistent with all other terms and conditions of the Offeror's proposal.
- (f) The Government will adjust each proposed price to reflect the cost of providing the proposed performance-based payments to determine the total cost to the Government of that particular combination of price and performance-based financing. The Government will make the adjustment using the procedure described in FAR 32.205(c).

(End of provision)

L. 5 SERVICE OF PROTEST (52.233-2) (AUG 1996)

(a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgement of receipt from:

Bid Office DRFP-12345-JLB Building TBD, Room TBD Mail Code TBD Goddard Space Flight Center Greenbelt, MD 20771

(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

(End of provision)

L. 6 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (52.252-1) (FEB 1998)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The Offeror is cautioned that the listed provisions may include blocks that must be completed by the Offeror and submitted with its quotation or offer. In lieu of submitting the full text of those

provisions, the Offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this/these address(es):

Federal Acquisition Regulation (FAR) provisions:

http://www.arnet.gov/far/

NASA FAR Supplement (NFS) provisions:

http://www.hq.nasa.gov/office/procurement/regs/nfstoc.htm

(End of provision)

L. 7 AUTHORIZED DEVIATIONS IN PROVISIONS (52.252-5) (APR 1984)

- (a) The use in this solicitation of any Federal Acquisition Regulation (48 CFR Chapter 1) provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the provision.
- (b) The use in this solicitation of any FAR or NASA FAR Supplement provision with an authorized deviation is indicated by the addition of (DEVIATION)" after the name of the regulation.

(End of provision)

L. 8 RESERVED.

L. 9 PROPOSAL PAGE LIMITATIONS (1852.215-81) (FEB 1998)

(a) The following page limitations are established for each portion of the proposal submitted in response to this solicitation.

<u>Proposal Section</u>	Page Limit
Mission Suitability Proposal Price Proposal	75 pages No limit
Business Management Proposal	15 pages
Calibration/Validation Plan (Non-Formulation Phase Contractors)	75 pages
Oral Presentation (Non-Formulation Phase	500 pages
Contractors)	

- (b) A page is defined as one side of a sheet, 8 ½" x 11", with at least one inch margins on all sides. Type should be in Times New Roman. Font size for text shall be 12 point with normal kerning (spacing between individual characters) and 14 point leading (line spacing). Font size for text in figures and tables shall be 10 point or larger. Foldout pages may be used where appropriate but each foldout will count as the equivalent number of 8 ½" x 11" pages rounded up to the nearest whole number. That is: an 11" x 17" fold-out page with printing on one side will count as two pages, whereas an 11" x 20" fold-out page with printing on one side will count as three pages. Illustrations, charts, etc., are all included in the limitation total. Cover and title pages (with no more text than needed to identify the subsequent pages), tables of contents, indices, tabs/dividers (without text) and an acronym list (if so included) are excluded from the page count. Offerors are cautioned that pages not in compliance with this solicitation instruction will not be considered in the evaluation and will be returned to the Offeror.
- (c) The "descriptions and evidence of any binding commitments for the sources of all funds, including but not limited to, equity, debt, advance LDCM payments and any "will-buy" agreements", as mentioned in L.14. Subfactor B, is not included in the Mission Suitability proposal page limitations. The Small Business Subcontracting Plan and SDB participation program is also excluded from any page counts.
- (d) If final proposal revisions are requested, separate page limitations will be specified in the Government's request for that submission.
- (e) Pages submitted in excess of the limitations specified in this provision will not be evaluated by the Government and will be returned to the Offeror.

(End of provision)

L.10 RESERVED.

L.11 PATENT RIGHTS CLAUSES (1852.227-84) (DEC 1989)

This solicitation contains the patent rights clauses of FAR 52.227-11 (as modified by the NFS) and NFS 18-52.227-70. If the contract resulting from this solicitation is awarded to a small business or nonprofit organization, the clause at NFS 18-52.227-70 shall not apply. If the award is to other than a small business or nonprofit organization, the clause at FAR 52.227-11 shall not apply.

(End of provision)

L.12 STANDARD FORM 33 AND SUBMITTAL OF OFFER

This must be a separate proposal volume.

1. SF 33, Offeror Fill In's and Section K

Blocks 12 through 18 of the SF 33 and the indicated Offeror required fill-in's in Sections B-K must be completed. The signed SF33, the pages with the required fill-in's, and all of Section K must be submitted. The balance of the solicitation need not be returned unless the Offeror has made changes to other pages that will constitute part of the contract. Any such changes must be separately identified in the Summary of Exceptions.

2. Offer Acceptance Period

It is requested that Offerors indicate, in Block 12 of the SF 33, a proposal validity period of 180 days. However, in accordance with paragraph (d) of FAR provision 52.215-1, "Instructions to Offerors-Competitive Acquisitions", a different validity period may be proposed by the Offeror.

3. Summary of Exceptions

List all exceptions to the terms and requirements of Sections A through J of this solicitation, to the Representations and Certifications (Section K) or to the information requested in Section L. Include the reason for the exception, or refer to where the reason is addressed in the proposal. This list must include all exceptions, both "business" and "technical". Offerors are cautioned that exceptions may result in a determination of proposal unacceptability (NFS 1815.305-70), may preclude award to an Offeror if award is made without discussions, or may otherwise affect an Offeror's competitive standing.

L.13 GENERAL PROPOSAL INSTRUCTIONS (COMPETITIVE)

This is the second step of a two-step acquisition process. In order to be able to compete with the current Formulation Phase contractors for Implementation phase award, non-Formulation phase Offerors must demonstrate design maturity equivalent to that of the Formulation phase contractors. This demonstration must include completion of the following Formulation phase deliverables: (1) Completion of a Preliminary Design; (2) Results of completed Trade Studies and Analysis; (3) Risk Management Plan; (4) Calibration/Validation Plan.

Formulation contractors have satisfied the maturity demonstration and completion of the required deliverables through successful completion of the Formulation phase. This solicitation allows non-Formulation phase Offerors the opportunity to provide this maturity demonstration and completion of the required deliverables through an oral presentation and the submission of a Calibration/Validation Plan. Successful demonstration of maturity during the oral presentation and providing the Calibration/Validation Plan are some of several factors that the Government will consider in determining whether non-Formulation phase Offerors should be considered in the evaluation process for Implementation Phase award.

All Offerors (Formulation and non-Formulation phase Offerors) are required to respond to the written segment of the solicitation as provided in sections L.14, L.15, and L.16.

Oral presentation requirements for Offerors that were not Formulation phase contractors
The Offeror shall notify the Contracting Officer within 3 calendar days of the release of this RFP of its
Notice of Intent to submit a proposal, including a request for oral presentation. This notice must include a point of contact and phone number of the individual authorized to schedule the oral presentation.

The Contracting Officer will schedule the time and location of the oral presentation with each non-Formulation phase Offeror. Oral presentations will be conducted at GSFC and will be scheduled during the second and third weeks after the release of the RFP. The primary speaker for the oral presentation portion shall be the individual responsible for total direct management of the Offeror's proposed program. Pre-recorded videotaped presentations will not be considered. The number of Offeror participants shall be limited to 25 individuals. Each Offeror will be provided a maximum of three working days to conduct its oral presentation. Within this limit of three working days, it is within the Offeror's discretion as to the amount of presentation time necessary to cover the required material. The presentations shall be conducted within the hours of 8:30 a.m. to 5 p.m, Eastern Time. The Government reserves the right to record (either by video, transcription, or tape) these oral presentations.

Written material for the oral presentation is limited to 500 pages, and is not part of the page limit for the Mission Suitability Proposal, as stated in provision L.9. Content of the oral presentation shall address all of the requirements in L.18. This material shall be delivered at least two business days prior to the scheduled presentation date. Any material presented, either orally or in writing, must address only the information requested for the oral presentation portion of the Mission Suitability Proposal. Any material presented by the Offeror, either in writing or as part of the oral presentation, which is determined by the Contracting Officer to fall outside the information requested will not be considered. Any information in the oral presentation that the Offeror desires to be included in the resultant contract must be submitted

separately in writing (in Contract Attachment H, Contractor Proposed Enhancements).

(End of Text)

L.14 MISSION SUITABILITY PROPOSAL INSTRUCTIONS (COMPETITIVE)

1. Mission Suitability Proposal

The Mission Suitability Proposal should be specific, detailed, and complete enough to clearly and fully demonstrate that you understand the requirements and the inherent problems associated with the objectives of this procurement. Stating that you understand and will comply with the specifications, or paraphrasing the specifications is inadequate as are phrases such as: "Standard procedures will be employed" and "Well-known techniques will be used." The Mission Suitability Proposal must be sufficient as to how you propose to comply with the applicable specifications, including a full explanation of the techniques and procedures you propose to follow. Other than the Formulation Deliverables that will be considered for the Implementation award, information previously submitted, if any, would be considered only to the extent it is resubmitted. Information previously submitted shall not be incorporated by reference.

Proposals will be evaluated against the requirements specified in this solicitation. Although the Government does not encourage/discourage enhancements to the LDCM requirements in the technical documents (e.g. Statement of Work, Data Specification, and Calibration/Validation requirements), Offerors may choose to propose technical performance enhancements that are above those specified in the aforementioned technical documents. Offerors may also choose to include business related enhancements above those specified in the RFP. In order for the Government to consider a proposed enhancement's value, the Offeror must include the enhancement in Contract Attachment H and the Offeror must describe the benefit of the proposed enhancement in the proposal under the applicable Mission Suitability subfactor. The Offeror shall include Contract Attachment H as part of the model contract in the Contract Volume of the proposal.

The Offeror must identify and discuss the risk factors associated with accomplishment of the requirements of the contemplated contract. This must be done in the applicable Mission Suitability subfactor. Risk factors may be those inherent in the work, unique to the Offeror's chosen approach, or specifically identified by the Government in this solicitation. General areas of possible risk that are of concern to NASA are technical, schedule, cost, safety, occupational health, security (including personnel and information technology), export control and environmental risks, as applicable. The identification of risks is the responsibility of the Offeror. However, these instructions may provide Government identified risks that must also be addressed by the Offeror. The Offeror's discussion of any risk factor should provide the Offeror's approach to managing the risk--the probability of the risk, impact and severity, time frame and alternatives that the Offeror would utilize to meet the requirements.

Additional instructions for completing the Mission Suitability proposal, including the subfactors under the Mission Suitability Factor, are as follows:

Subfactor A: Technical Approach

(The following instruction paragraph applies only to Offerors who were not LDCM Formulation Phase Contractors.)

Discuss, through oral presentation as described in provision L.13, the maturity of the proposed preliminary system design. Provide the information as requested in L.18 during the oral presentation. (note: this presentation has it's own page limit in L.9 and is not included in the Mission Suitability Proposal page limitation). The Offeror will also provide a Calibration/Validation Plan at the time of Oral Presentation. (note: this plan has it's own page limit in L.9 and is not included in the Mission Suitability Proposal page limitation).

(The following instruction paragraph applies only to Offerors who were LDCM Formulation Phase Contractors.)

The applicable deliverables from the Formulation Phase contract will be included as part of your proposal for the Implementation Phase procurement. Resubmittal is not required.

(The following instructions apply to all Offerors.)

Provide any updates in text form to the previously provided PDR/Oral presentation information and Calibration/Validation Plan.

Provide the following information regarding the Instrument:

Describe how Sensor Chip Assembly (SCA)-to-SCA registration is accomplished across the Sensor(s) field of view(s), including pre-launch line-of-sight pixel mapping, and on-orbit calibration

Describe potential sources of ghosting in the sensor design and how it will be tested for and mitigated.

Describe the approach to monitoring detector dark current and accounting for dark current drift in sensor calibration and radiometric correction of LDCM sensor data.

Describe the effects of Time Delay Integration (TDI) on the spatial characteristics of LDCM Sensor Data and VDPs, particularly with respect to edge response.

Provide the following information regarding Operations and Data Processing:

Describe the approach for latency, fault recovery and security in the flow of the LDCM Sensor Data and ancillary data, from the receipt of planning information from the Government, to spacecraft scheduling and data acquisition by the instrument(s), to delivery as Active Archive, NSLRSDA and Validation Data Packages.

Describe data flow and operations testing, including phasing of simulated data and hardware to

real hardware and data.

Describe the systems and operations interfaces to the Government for scheduling of all data acquisition including the resolution of any conflicts between commercial data and LDCM data acquisition, calibration and maintenance events, and processing. List any system constraints that may impact acquisition planning or generate schedule conflicts.

Provide the following information regarding Data Quality:

Describe the Calibration Coefficients management philosophy including frequency of verification and updates and planned tests and sites for calibration.

Describe how the proposed design ensures that the L1Gt VDPs exhibit accurate Band to Band registration over areas of high Terrain relief.

Describe how the proposed instrument characterization and calibration approach ensure accurate and consistent radiometric, spectral, and spatial calibrations for all bands across the entire field of view.

Describe how the absolute radiometric calibration of the instrument is maintained and verified during the pre-launch phase, through launch and once on-orbit.

Describe how the end-to-end performance of the system, from photons to pixel-level data product radiances will be demonstrated prior to launch under operating environmental conditions

Provide a description and flow diagram of the required algorithms used in creating LDCM Sensor Data and Ancillary Data and those required for processing this data into the required deliverable LDCM Data Package and Validation Data Products.

Describe any on-board and ground processing algorithms and their potential effects in degrading the radiometric, spatial or geometric qualities of the delivered LDCM Validation Data Products and Data Packages.

Describe cloud cover assessment with details for distinguishing between clouds, snow, and smoke within an image for cloud cover scoring.

Identify any requirements for Government furnished equipment tasks, services, or data required in its proposed approach.

Describe its proposed implementation for the optional five years of LDCM data delivery.

Describe your proposed implementation approach for providing the Level 1Gt data products as requested in the options portion of the contract. Provide a summary of a data throughput analysis including the margin at each interface and function. Identify any unique Government interfaces that would be introduced with this approach.

Subfactor B: Business Approach

The Offeror shall describe its business approach and benefits to the Government and the Landsat Program, with regard to the long-term availability of Landsat-type imagery from a privately owned and managed source.

The Offeror shall provide a net income statement for the past year, a summary of net cash flows, and a description of assets and liabilities over \$1M. The Offeror shall also provide details on its present debt structure and repayment terms. Net income statements shall include a line called earnings before interest, taxes, debt, and amortization (EBITDA). The Offeror shall describe any active and pending projects that effect the net corporate financial position.

The Offeror shall also describe the overall structure and business relationship of the investment group. The Offeror shall provide financial documentation describing the overall corporate health and the commitment of its major investors. Major investors are top ten members of the investment group by percent of total investment such as money, assets, debt relief, or any other substantive contributions

The Offeror shall describe its approach to financing the system development, launch and operations cost for the system used to produce the LDCM data. The Offeror shall include descriptions and evidence of any binding commitments for the sources of all funds, including but not limited to, equity, debt, advance LDCM payments and any "will-buy" agreements. (note: the descriptions and evidence cited above is not page limited per L.9.(c)). The Offeror shall also specifically identify any sources of finances that are contingent on any other condition.

The Offeror shall provide details on any equity investment sources, including but not limited to, viability, timing and amount. The Offeror shall also describe shareholder expectations and expected shareholder returns.

The Offeror shall provide details on any debt capital requirements including timing of debt, structure of debt, length of the notes, interest rates and repayment type. The Offeror shall provide evidence on the viability of the proposed debt. The Offeror shall identify if the debt is recourse or non-recourse and its approach to servicing the debt.

The Offeror shall also describe access to any other sources of funds that would be available to the Offeror on an as-needed basis.

The Offeror shall describe its Commercial Business Plan for marketing any data, information or services from the system that produces LDCM data, including its business and marketing strategy. The Offeror shall describe its projection of the business base, cost model summary output used in the analysis of business plan, internal rate of return projections and the expected profit to investors (Return-on-Investment (ROI)). The Offeror shall describe its anticipated product offerings by market segment, total market size, projected market share, product adoption rate and yearly revenue

projections. The Offeror shall also describe the basis for all assumptions and supporting documentation.

The Offeror shall summarize funding source commitments and projected sales revenues (Exhibit 2).

The Offeror shall describe its approach to managing the financial risk including, but not limited to, an analysis of the effect of competition; sensitivity to market conditions; contingency plan for mitigating funding shortfalls, lapses or delays; and cost growth. The Offeror shall also provide an analysis of the probability to acquire post-launch revenues. The Offeror shall also describe its approach to providing LDCM data should non-LDCM revenues fail to materialize at expected rates.

The Offeror shall describe its financial recovery plan for recovering mission failure including its approach to insurance. The Offeror shall provide details of proposed insurance policies, if any, including the types of insurance (i.e. launch, on-orbit, commissioning), length, source and rates.

Subfactor C: Management Approach

The Offeror shall describe how the combination of the proposed payment structure, and other contract terms and conditions (including Offeror fill-ins and any proposed enhancements) protect any Government pre-IOC investment and provide assurance that the continuity of the Landsat Program will be maintained.

The Offeror shall provide a detailed schedule down to and including subsystem level, including integration of major subsystems, for the space and ground elements. This schedule should include identification of slack/float/margin over the mission life cycle, critical path to launch and IOC, major reviews, and payment milestones.

The management approach shall also include the Offeror's approach to meeting or exceeding the Government insight and surveillance requirements. The contractor shall define the process that will be used to acknowledge and be responsive to NASA inquiries and comments within the scope of contract requirements.

The Offerer shall describe its lines of responsibility and authority both internally and with teaming subcontractors, as well as levels of delegated authority at teaming subcontractors, to effectively manage the program at the levels actively developing, testing and operating the system. The Offeror shall describe its ability to manage this work at all levels with respect to skills and expertise applied to complex system development, test and operations, and depth of resources that can be applied to the mission especially if anomalies or problems occur.

The Offeror shall provide a corporate organizational chart that will indicate the location of the LDCM program in its corporate structure and location of the teaming subcontractors within the structure. If teaming Contractors or subcontractors are proposed, their interfaces with your organizational structure and the nature and extent of the work to be performed by the teaming Contractor or subcontractor shall be described. The Offeror shall describe how the prime contractor and subcontractors will work effectively as an integrated team.

Small Business Subcontracting Program (Refer to FAR 19.7)

This applies ONLY to large businesses.

This solicitation contains FAR clause 52.219-9, "Small Business Subcontracting Plan--Alternate II". The Subcontracting Plan described and required by the clause, including the associated subcontracting percentage goals and subcontracting dollars, must be submitted with your proposal.

The Contracting Officer's assessment of appropriate subcontracting goals for this acquisition, EXPRESSED AS A PERCENT OF CONTRACT VALUE, are as follows:

Small Disadvantaged Business Concerns	5%
Women-Owned Small Business Concerns	3%
Historically Black Colleges and Universities	1.5%
HUBZone Small Business Concerns	2.5%
Veteran-Owned Small Business Concerns	2%
Service-Disabled Veteran-Owned Small Business	0%
Concerns	
*Other Small Business Concerns	2%
Total Small Business Subcontracting	16%

^{*}Those Small Business Concerns that are not Small Disadvantaged, Women-Owned, Historically Black Colleges and Universities, HUBZone Small Business Concerns, Veteran-Owned Small Business Concerns, or Service Disabled Veteran-Owned Small Business Concerns.

Offerors are encouraged to propose goals that are equivalent or greater than those recommended by the Contracting Officer. However, Offerors should perform an independent assessment. The goals included in the submitted Subcontracting Plan may be higher, lower, or the same as the recommended goals, depending upon the Offeror's independent assessment.

Offerors are advised that a proposal will not be rejected solely because the submitted Plan does not meet the NASA recommended goals that are expressed above in terms of percent of contract value.

(NOTE: FOR PURPOSES OF THE SUBCONTRACTING PLAN, THE PROPOSED GOALS MUST BE STATED AS A **PERCENT OF TOTAL SUBCONTRACTS**, NOT AS A PERCENT OF CONTRACT VALUE. REFER TO THE BELOW EXAMPLE)

Begin example:

Assume a proposed contact value of \$20M and proposed goals that equate to the following, which are EXPRESSED AS A PERCENT OF CONTRACT VALUE:

Small Disadvantaged Business Concerns	4.5%
Women-Owned Small Business Concerns	2%
Historically Black Colleges and Universities	.5%
HUBZone Small Business Concerns	.5%
Veteran-Owned Small Business Concerns	1.0%
Service-Disabled Veteran-Owned Small Business	.5%
Concerns	
*Other Small Business Concerns	11%
Total Small Business Subcontracting (as percent of contract value)	20%

Then, the resulting statement of dollars that the Offeror would include in the Subcontracting Plan, as required by paragraph (d)(2) of FAR clause 52.219-9, would be as follows:

Small Disadvantaged Business Concerns	\$900,000
Women-Owned Small Business Concerns	400,000
Historically Black Colleges and Universities	100,000
HUBZone Small Business Concerns	100,000
Veteran-Owned Small Business Concerns	200,000
Service-Disabled Veteran-Owned Small Business	100,000
Concerns	
*Other Small Business Concerns	2,200,000
Total Small Business Subcontracting (as percent of	\$4,000,000
contract value)	

HOWEVER, the Subcontracting Plan must express goals as a percent of total planned subcontracts. Assuming total subcontracting of \$10M, the resulting percentage goals, EXPRESSED AS A PERCENT OF TOTAL SUBCONTRACT DOLLARS, and which would be stated in the Subcontracting Plan as required by paragraph (d)(1) FAR clause 52.219-9 would be:

Small Disadvantaged Business Concerns	9%
Women-Owned Small Business Concerns	4%
Historically Black Colleges and Universities	1%
HUBZone Small Business Concerns	1%
Veteran-Owned Small Business Concerns	2%
Service-Disabled Veteran-Owned Small Business	1%
Concerns	
*Other Small Business Concerns	4%
Total	22%

(End of example)

Subfactor D: Small Disadvantaged Business (SDB) Participation Program (Refer to FAR 19.12)

(Notice: These instructions apply to BOTH large and small business Offerors except SDB Offerors. They apply to SDB Offeror(s) ONLY if the SDB Offeror has waived the price evaluation adjustment factor by completing paragraph (c.) of FAR clause 52.219-23, "Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns" in Section I of this solicitation. The waiver, if elected, makes the particular SDB Offeror INELIGIBLE for the price evaluation factor adjustment but ELIGIBLE for the "evaluation credit" (points) associated with the SDB participation subfactor described in Section M.)

This solicitation is for a requirement within one of the North American Industry Classification System (NAICS) Industry Subsectors determined by the Department of Commerce in accordance with FAR 19.201(b) and meets the applicability conditions of FAR 19.12, "Small Disadvantaged Business Participation Program". A separate Mission Suitability subfactor for SDB participation is described in Section M.

Offerors must:

- a. Complete GSFC clause 52.219-91, "Small Disadvantaged Business Participation--Contract Targets", in Section H of this solicitation
- b. Indicate the total amount of target SDB participation as a percent of contract value.
- c. Briefly describe work that will be performed by SDB subcontractor(s). Identify any work considered "high technology". If the subcontractor(s) is known, tie the work to the subcontractor identified by the Offeror in GSFC clause 52.219-91.
- d. Provide the Offeror's record of past participation of SDB concerns in subcontracts and the type of work subcontracted such as production, engineering services, research, development, etc. over the past three full years. Copies of SF 295's can be part of the supporting information submitted.
- e. Identify, by contract number and contracting agency, SDB subcontracting incentives earned under any Government contracts in the last three years. If incentives were available, but not earned, so state.
- f. Provide a brief description of the Offeror's established or planned procedures and organizational structure for SDB outreach, assistance, counseling, market research and SDB identification, and relevant purchasing procedures. Large businesses may reference applicable portions of the submitted Small Business Subcontracting Plan.
- 3. Summary of Deviations\Exceptions (Mission Suitability Proposal)

Identify and explain the reason for any deviations, exceptions, or conditional assumptions taken with respect to these Mission Suitability proposal instructions or to any of the technical requirements of this solicitation, such as the statement of work and related specifications.

L.15 REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA (52.215-20) (OCT 1997)--ALTERNATE IV (OCT 1997)

Submission of cost or pricing data is not required. Provide the other than cost or pricing data described below:

The Offeror shall provide a proposed Government payment profile that complies with Clause B.4. The Offeror shall describe the benefits to the Government of its proposed payment profile.

1. Other Than Cost or Pricing Data

This solicitation requires the submittal of other than cost or pricing data. The term "other than cost or pricing data" is defined at FAR 15.401.

2. Price Proposal Exhibits

The prime contractor shall complete all exhibits. Cost reflected in these Exhibits should be shown in thousands of dollars (\$K).

Complete all Exhibits for the basic contract and each option.

(1) Exhibit 1 – Cost Summary by Government Fiscal Year at WBS Level

Include total mission cost by Work Breakdown Structure (WBS). In addition, major unique business expenses shall be separately identified, including, but not limited to, any Insurance, Interest Expense, Debt Servicing and Marketing Expense. Additional items may be added if needed.

WBS items identified in the exhibit are defined in Enclosure 2.

The Government's share of the total mission cost, and the proposed price, shall be identified by Government fiscal year in the exhibit. Separate exhibits are required for each observatory, as well as one summary exhibit that shows total mission cost.

For each option, a separate exhibit is required, as well as a summary exhibit with the basic contract and each specific option combined.

(2) Exhibit 2 — Business and Financial Approach Summary

Include sources of funding commitments to financing the proposed system development and operations. Include projected sales revenues from the proposed system. If additional items are needed that are not shown on the exhibit, they may be added if necessary.

Separate exhibits are required for the basic contract and each option as well as a summary exhibit with the basic contract and each option combined.

3. Summary of Deviations/Exceptions (Cost/Price Proposal)

Identify and explain the reason for any exceptions to these cost/price proposal instructions.

L.16 BUSINESS MANAGEMENT PROPOSAL INSTRUCTIONS (COMPETITIVE)

The term "Business Management Proposal" is not limiting. While these instructions require the submittal of information that is primarily of a "business" nature, some "technical" information is also required.

1. Past Performance

The information requested below is anticipated to be sufficient for purposes of the evaluation of past performance. However, Offerors may submit additional information at its discretion if they consider such information necessary to establish a record of relevant past performance. Refer to FAR 15.305(a)(2)(iii).

(Note: Those Offerors intending to submit Past Performance information that is classified should contact the Contracting Officer, Jim Becker, at 301-286-4223, so that arrangements may be made for proper handling/receipt of such information.)

Provide two matrices of relevant contracts listing:

- a. All relevant systems delivered in the past five years for which the Offeror, or its proposed major subcontractors, were the prime Contractor or a major subcontractor.
- b. All relevant systems currently in development for which the Offeror, or its proposed major subcontractors, is/are the prime contractor or a major subcontractor.

Relevant systems include space-based systems; ground control systems for space-based elements; and data processing, data archive, and data distribution systems.

*NOTE: "Major Subcontractor" is defined as any subcontract >10% of the overall contract value.

1.1 Contents of MATRIX 1

In the first matrix, provide a listing of relevant systems for which the Offeror was the prime Contractor or a major subcontractor that have been delivered during the past five years. This matrix should contain the following columns (the column headings are given in all caps, as follows):

- a. NAME OF PROJECT AND LAUNCH/OPERATIONAL DATE
- b. SCOPE OF WORK- Work performed and/or elements provided.
- c. BUYER The buyer of the system, including name and address.

- d. CONTRACT NUMBER & TYPE The contract number under which it was bought, and contract type
- e. AWARD DATE & METHOD The contract award date and was it competitive or not
- f. C.O. & C.O.T.R. The name and phone number of the Contracting Officer and the Contracting Officer's Technical Representative (or their equivalent for commercial contracts) at the time of the delivery
- g. PERFORMANCE SUCCESS The success rate of the system in terms of meeting the requirements stated in the contract. This should be stated as a percentage, with an explanation of how you calculated the percentage. Please describe any major technical problems and how they were overcome.
- h. COMPARABILITY Provide a brief description of how the system is comparable to the LDCM requirements. It is not sufficient to state that it is comparable in magnitude and scope. Rationale must be provided to demonstrate that it is comparable.
- i. SCHEDULE SUCCESS The success record in meeting contractual delivery dates, and explanations for any deviations from those dates.
- j. ORIGINAL VALUE The value of the contract at the time it was awarded (if it started as a letter contract, at the time it was definitized), inclusive of profit/maximum potential fee, and inclusive of fully priced options that were exercised since award.
- k. CURRENT/FINAL VALUE The current contract value, with identification of the total amount of any increases attributed to:
- changes directed by the buyer
- cost growth which was your responsibility
- added scope
- other causes

If the contract was fixed price, and you suffered a loss under the contract, state the value of the loss, and the reason it occurred.

1. CONTRACT REVISIONS - If the contract was descoped or partially terminated for any reason, of if the terms and conditions were significantly restructured for any reason, or if there were any major waivers or deviations granted by the buyer, explain why this was done, and the impact on the contract.

SPECIAL INSTRUCTIONS for MATRIX 1

Include as much information as you can in the matrix itself. If it is not possible to include all the information in the matrix, include the information in footnotes following the matrix, clearly labeled to provide traceability to the matrix itself.

List systems in reverse chronological order, beginning with the most recent. It is not necessary to repeat information previously given in the matrix. If the information is the same for two systems, just include a statement in the matrix saying "SAME AS_______".

Provide the name, title, and phone number of the Government or customer personnel that we can contact to verify the accuracy of the information.

If you were not the prime contractor, but you did play a significant role in such relevant systems, provide the information to the best of your ability, and explain in the footnotes exactly what role you played.

1.2 Contents for MATRIX 2

In the second matrix, provide a listing of all of the relevant systems for which the Offeror is or will be the principal Contractor or major subcontractor that are <u>currently in development</u> and for which the final delivery has not been made. Include all system deliveries that are anticipated during the next three years. The matrix should contain the following columns (The column headings are given in all caps, as follows):

- a. NAME OF PROJECT & EXPECTED DELIVERY DATE The name of the mission or system and the date you expect it will be ready for delivery.
- b. SCOPE OF WORK- Work to be performed and/or elements to be provided.
- c. BUYER The buyer of the system, including name and address.
- d. CONTRACT NUMBER & TYPE The contract number under which it is being bought, and contract type
- e. AWARD DATE & METHOD The contract award date (actual or anticipated), and was it competitive or not
- f. C.O. & C.O.T.R. The name and phone number of the Contracting Officer and the Contracting Officer's Technical Representative (or their equivalent for commercial contracts) at the present time
- g. COMPARABILITY Provide a brief description of how the system is comparable to the LDCM requirements. It is not sufficient to state that it is comparable in magnitude and scope. Rationale must be provided to demonstrate that it is comparable.
- h. ANTICIPATED PERFORMANCE SUCCESS RATE The projected system success rate in terms of meeting the performance requirements stated in the contract. This should be stated as a percentage, with an explanation of how you calculated the percentage. Please describe any major technical problems and how they were or are being overcome.

- i. ANTICIPATED SCHEDULE SUCCESS The probability of meeting the contractual dates, and explanation for any deviations from those dates.
- j. ORIGINAL VALUE The value of the contract at the time it was awarded (if it started as a letter contract, at the time it was definitized), inclusive of fully priced options that were exercised since award.
- k. CURRENT/PROJECT VALUE The current and projected final contract value, with identification of the present and the final projected total values of the increases attributed to:
 - changes directed by the buyer
 - cost growth which was your responsibility
 - added scope
 - other causes

If the contract is fixed price, and you are suffering a loss or projected loss under the contract, state the value of the loss, and the reason for it.

l. CONTRACT REVISIONS - If the contract was descoped or partially terminated for any reason, of if the terms and conditions were significantly restructured for any reason, or if there were any major waivers or deviations granted by the buyer, explain why this was done, and the impact on the contract.

SPECIAL INSTRUCTION for MATRIX 2

Include as much information as you can in the matrix itself. If it is not possible to include all the information in the matrix, include the information in footnotes following the matrix, clearly labeled to provide traceability to the matrix itself.

List the systems in chronological order, beginning with the one next expected for delivery.

Provide the name, title, and phone number of the Government or commercial customer personnel that we can contact to verify the accuracy of the information.

If you are not the prime contractor, but you will play a significant role in such relevant systems, provide the information to the best of your ability, and explain in the footnotes exactly what role you will play.

2. Additional Information to be furnished:

a. Waiver of Rights to Inventions

This solicitation contains NASA FAR Supplement (NFS) clause 1852.227-70, "New Technology" and NFS provision 1852.227-71, "Request for Waiver to Rights to Inventions." Any petitions for advance (prior to contract execution) waiver of rights to inventions should be included in the Business proposal.

b. Export Laws

Performance of this contract to collect and process LDCM data will be subject to the export licensing jurisdiction of the Department of State, and its International Traffic in Arms Regulations, 22 CFR 120-130 (United States Munitions List, Category XV). To the extent of any foreign involvement in a particular proposal, the Offeror shall describe how they have or will comply with U.S. export control laws and regulations for the involvement of foreign participants. If an export license was required for the preparation or submission of a proposal with foreign content, a copy of such license must be provided with the proposal.

If the Offeror is a joint venture or consortium of companies or entities and one or more of those companies or entities is foreign, the Offeror shall disclose in the proposal where the foreign company or entity is legally incorporated or has legal status, and the extent of the proposed entity's involvement in the program.

c. Government Property

Section K of this solicitation contains NASA FAR Supplement provision 1852.245-79 entitled Use of Government Owned-Property. The provision requires the submittal of certain information if the Offeror intends to use any Government property that may be offered by this solicitation or if the Offeror requests the use of Government property not identified by this solicitation. Such information, if required by the provision, shall be included in the Business Management Proposal.

3. Summary of Deviations/Exceptions (Business Management Proposal)

Identify and explain the reason for any deviations, exceptions, or conditional assumptions taken with respect to these business management proposal instructions or to any terms and conditions of the solicitation other than those of a technical or cost nature.

(End of Text)

L. 17 (reserved)

L.18 Information Required to Address Design Maturity during Oral Presentation

	PDR Item - Requirement	Information Requested to Meet Requirements	
1	Demonstrate that the LDCM architecture and design meets all system requirements with defined risk levels.		
2	Discuss the maturity of operational concepts (including servicing of International Cooperators, if applicable),	Coherent, complete operations concept for satellite operations, LDCM data flow (including scheduling), and End of Life and observatory disposal plans.	
3	Summarize any vendor PDRs that may have been conducted below the systems level	List and summarize results of any other PDRs held	
4	Summarize requirements allocations to systems and subsystems, and analyses	Provide Requirements Traceability Matrix to subsystem level	
5	Demonstrate risk management has been integrated into the design and development activities, and prioritized risk areas have mitigation approaches defined.	Identify current risks and mitigation plans, and how previously identified risks have been addressed or mitigated by the system design. Provide Risk Management Plan.	
6	Demonstrate that internal and external interfaces are identified and understood.	Identification of all interfaces and status of IRDs/ICDs, interface requirements. Status of margins at any external interface should be provided (ie throughput)	
7	Overall, demonstrate that the system architecture, designs, and operations concepts have been validated by enough technical analysis and design work to establish a credible, feasible design that can support government and commercial (if applicable) data and data product requirements	System Performance budgets, analyses, modeling and any early results are required. Estimates of weight, power, volume and the basis for the estimates of these parameters are required. Supporting data and analyses for mechanical, power, thermal, and electronic design: load, stress, margins, reliability assessments, should be shown. Software requirements, design, structure, logic flow diagrams, Central Processing Unit (CPU) loading, design language and development systems need to be specified (NASA has included templates for Margin and Budget Tables in Enclosure 3.)	
8	Provide a baseline design that can be readily matured into detailed designs and "build-to" specifications	Subsystem and box/unit requirements known, list the plans to go forward	
9	Demonstrate that the best design options have been selected and implemented from trade studies and analyses, and summarize the trade studies performed.	Summarize the trade studies performed and rationale for decisions made.	

10	Summarize any simulations in support of the design and operations	Description and summary results form all simulations, including performance, data flow, scheduling, etc.	
11	Identify any software prototypes	Description and summary results from all SW prototypes	
12	Provide preliminary Implementation and Integration and Test schedules	Provide Implementation Phase Schedules to a subsystem level. Provide specific schedules addressing pre-launch hardware and software I&T.	
13	Summarize system-level test, verification planning and verification matrices	Design verification, test flow and calibration/test plans. This should include a verification matrix, functional qualification and performance test matrices.	
14	Discuss the maturity of calibration and validation planning	Provide a schedule showing system Calibration and Validation both pre-and post-launch.	
15	Reserved		
16	Show that a rough order of magnitude system and life-cycle costs have been established	How system costing has been accomplished, the confidence in these numbers, and the amount of the Government share (Mgmt Splinter). Show that the proposed preliminary design can be expected to meet all the requirements within the planned cost and schedule. Are sufficient project reserves and schedule slack available	
17	Identify technical cost drivers	List the LDCM (versus commercial) technical cost drivers, identify if there are mitigation plans, and identify impacts if unsuccessful.	
18	Identify any potential long lead procurement items	List Long Lead Parts, the schedule for procuring them, the margin between expected deliveries and need dates, and any mitigation options.	
19	Summarize ITAR information and status	List ITAR concerns, mitigation approaches, and status.	
20	Show that work breakdown structures have been established	Show WBS to subsystem level	
21	Show the maturity of management systems and processes	Describe the management approach including, but not limited to, program management, schedule, configuration control, subcontracts, mission assurance, and resource management. How have the processes of MPR2 worked. Lessons learned. Changes to be incorporated for Implementation phase	
22	Discuss configuration and interface controls	Concentrate on inter-contractor and contractor to Government interfaces.	

23	Summarize any new programmatic processes/procedures and tools that have been established that will carry into the Implementation Phase	Summarize Management processes (i.e. lessons learned and improvements)
24	Update, if required, the assurance of Data Quality, engineering and process control programs and activities, and government/contractor surveillance plans	Summarize technical processes relating to system design and build that effect the quality or quantity of the Data provided, including: 1) Criteria used in selection of materials and parts (de-rating criteria, radiation hardness, qualification, and Failure Mode and Effects Analysis (FMEA) plans; Materials and Processes). 2) Identify the contamination requirements and provide a mitigation strategy. 3) Show how system is designed to meet mission life requirements (identification of single point failure modes, critical design areas which may be life limiting, provide a Reliability analysis, and identify impacts. Analyze the impacts and how mitigated. Describe how the Government will be provided insight into day to day activities.

L.19 PROPOSAL MARKING AND DELIVERY

1. Receiving Office

The designated receiving office for proposals is the Bid Room located on the premises of the Goddard Space Flight Center, Greenbelt, Maryland, in Building 17, Room S-142. The Bid Room hours are 8:00 AM to 4:00 PM, Monday through Friday, except Government Holidays. Proposals must be received by the date and time stated on the solicitation face page.

Offerors must either deliver their proposal, modifications or withdrawals by U. S. Postal Service Mail or *hand deliver (includes the use of a commercial delivery service). Regardless of the delivery method chosen, the proposal must be closed and sealed as if for mailing.

*Note: Non-U.S. citizens that do not have a "green card" will not be given access to the Goddard Space Flight Center for the purpose of proposal delivery.

2. External Marking

[PLEASE NOTE THE ADDITIONAL MARKING REQUIREMENTS IN (b) IF A COMMERCIAL DELIVERY SERVICE IS USED]

(a) The required mailing address/external marking for proposals is as follows:

"NASA
Goddard Space Flight Center
Greenbelt, MD 20771
Attention: TO BE DETERMINED (TBD)
Building TBD, Room TBD
RFPW-(Offeror--add the remaining numbers of solicitation)
PROPOSAL--DELIVER UNOPENED"

(b) If the proposal is to be delivered by a commercial delivery service such as United Parcel Service, Federal Express, DHL, Purolator, etc., place the following on the outside of the carrier's envelope or package cover: (Offeror must complete fill-in's appropriately)

Same information in (a) above and--

"COMMERCIAL DELIVERY PERSONNEL: THIS PROPOSAL MUST BE HAND CARRIED DIRECTLY TO THE BID ROOM, BUILDING 17, ROOM S142 AND RECEIVED NO LATER THAN ____(time) _____(month/day/year). THE BID ROOM IS OPEN FROM 8:00 AM TO 4:00 PM, MONDAY THROUGH FRIDAY, EXCEPT GOVERNMENT HOLIDAYS."

L.20 PROPOSAL COPIES AND VOLUME ASSEMBLY

1. Hardcopy Instructions

The following matrix specifies the required number of copies of each proposal volume/item and the grouping of the volume/item.

Proposal Items	Copies Required		
	Total Copies	Group 1	Group 2
	Required	(Originals)	
SF 33 AND SECTION K	4	1	3
MISSION SUITABILITY PROPOSAL	20	1	19
PRICE PROPOSAL	10	1	9
BUSINESS MANAGEMENT PROPOSAL	10	1	9
CALIBRATION/VALIDATION PLAN (Non-	5	1	4
Formulation Phase Contractors)			
		-	_
ORAL PRESENTATION PACKAGE (Non-	30	1	29
Formulation Phase Contractors)			

<u>PACKING</u>: Each group, designated above, is to be packaged individually. This does not preclude packaging more than one, or all, groups in a single overall package. Mark the group number on the outside of the individual packages. Group 1 shall consist of all originals.

2. Electronic Copy Instructions

- a. The Government intends to use a Microsoft Windows compatible computer with 3 ½ inch floppy disk drives and CD-ROM drives to assist in the evaluation of proposals. The Offeror shall submit two electronic/software versions (MS Office compatible or Portable Document Format) of its Mission Suitability, Price and Business Management volumes on CD-ROM disks. One of the two copies shall be identified as backup. The disks will be used primarily to assist evaluators with focused (e.g. keyword) searches for information with your proposal. The electronic version will NOT be used to evaluate the proposal. Only the paper copy will be used for this purpose.
- b. Price Proposal exhibits are included with this RFP. Microsoft Excel 2000 will be used by the Government and is required for Offeror's electronic submissions of the Price Proposal exhibits. These exhibits can be on CD-ROMs or 3 ½ in floppies.
- c. The Offeror shall provide written documentation that describes the contents of each diskette/disk and of each file.